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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* DONALD W. VERSER,  
DAVID H. BURNS, and  
JOHN D. HOTTOVY

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Appeal 2008-006064  
Application 10/699,095  
Technology Center 1700

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Decided: August 27, 2009

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Before CHARLES F. WARREN, CATHERINE Q. TIMM, and  
LINDA M. GAUDETTE, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

Appellants request rehearing of our Decision mailed March 24, 2009. In that Decision, we reviewed two rejections the Examiner had maintained under 35 U.S.C. § 103(a), one over Kendrick in view of Hanson '892, and one over Tormaschy in view of Hanson '892 and Hanson '341. We sustained the rejection over Kendrick and Hanson '892 as to claims 1, 15,

28-31, 33, 36, and 41, but did not sustain the rejection as to claims 47-40, and 42. We also sustained the rejection of claims 1, 15, 28-31, 33, and 36-42 over Tormaschy in view of Hanson '892 and Hanson '341.

Appellants ask us to reconsider our decision as to the rejection of claims 37-40, and 42 over Tormaschy, Hanson '892, and Hanson '341 (Request 2). For this group of claims, claim 37 is representative (Decision 16).

Requests for rehearing must comply with 37 C.F.R. § 41.52(a)(1) which specifies in pertinent part that “[t]he request for rehearing must state with particularity the points believed to have been misapprehended or overlooked by the Board.” We address Appellants’ arguments to the extent they comply with the rule.

Appellants contend that we overlooked a portion of Appellants’ disclosure when we interpreted “withdrawing substantially continuously” a discharge slurry from a reactor (Request 2-3), that even under our interpretation, Tormaschy and Miller (which Tormaschy incorporates by reference) do not disclose “withdrawing substantially continuously” from the reactor (Request 3-4), that we overlooked the language “via a valve” and “from the reactor” in claim 37 (Request 4), and argue that Tormaschy, with the information incorporated by reference from Miller, does not contain an enabling disclosure for continuously withdrawing as recited in claim 37 (Request 5-6).

#### *Issue*

The issue is: Have Appellants established that we misapprehended or overlooked the claim language, Specification disclosures, and arguments relating to the withdrawing step of claim 37?

*Findings of Fact and Analysis*

The pertinent portion of claim 37 reads: “withdrawing substantially continuously via a valve a discharge slurry from the reactor . . . wherein the discharge slurry has a solids concentration greater than the solids concentration of the slurry in the reactor.”

With regard to the phrase “withdrawing substantially continuously,” we found that the Specification does not provide any guidance with regard to the meaning of “substantially” (FF 17 at Decision 17). We further found that the Specification describes removing a slurry of solid polymer particles and diluent from the reactor by allowing the slurry to settle, withdrawing a batch, shutting off the valve at the bottom of the settling zone, and then continuously removing the slurry (FF 16). Appellants do not dispute those findings (Request 2). Instead, Appellants contend that one of ordinary skill in the art would not interpret “substantially” as including any batch operations, citing to the last three sentences of ¶ [0063] of the Specification.

The paragraph Appellants cite reads as follows:

By maintaining a desired level of solid olefin polymer particles in an intermediate pressure zone, one can control the polymer solids residence time, which is the average amount of time a polymer particle spends in the intermediate pressure zone. An increase in polymer solids residence time allows flashing and/or separating of more diluent, including more entrained diluent, from the polymer solids, thereby increasing the purity and processability of the polymer exiting the zone. Furthermore, by maintaining a desired level of polymer solids in the intermediate pressure zone, one can create a pressure seal between the zone and downstream equipment. In addition, operating and maintenance costs are reduced by providing a pressure seal between the intermediate pressure zone and purge zone that does not require the use of on/off valves. Additionally, the need for a separate fluff chamber may be

eliminated. The pressure seal may rely on the level of polymer solids to restrict the flow of gaseous or liquid (if any present) diluent out of the intermediate pressure zone. The particles of polymer solids may substantially close off the majority of flow path (cross sectional area) available to the diluent. Nonetheless, it is contemplated that a small amount of flow path may be available thorough the small gaps between adjacent particles. This small continuous flow may reduce the ultimate recovery efficiency of diluent in the intermediate pressure zone.

(Spec. ¶ [0063].)

The paragraph cited by Appellants is not related to the step of withdrawing the discharge slurry from the reactor, it is related to a step of separating the polymer particles from the diluent within the slurry. Specifically, the cited paragraph relates to the manipulation of the polymer particles within an intermediate pressure zone of the separation apparatus shown in Figure 11. Separation takes place well after removal of the slurry from the reactor.

Appellants have not convinced us that we overlooked any relevant portion of the Specification in interpreting “withdrawing substantially continuously” as the phrase applies to the discharge slurry removed from the reactor.

At pages 21 and 22 of our Decision, we discuss the teachings of Tormaschy. Appellants contend that “with regard to the assertion that Tormaschy discloses continuous withdrawal because it discloses removal of slurry in pounds per hour, Appellants stress that even a batch process will have a flow rate when material is removed,” and “merely disclosing a flow rate of removal from a batch process is not the same as “withdrawing substantially *continuously*” from the reactor (Request 3). Appellants further argue that while Miller (which is incorporated by reference in Tormaschy)

uses the term “continuous,” Miller “appears to be directed to some manner of maintained flow through a typical settling leg configuration.” (Request 3-4).

In reaching our Decision, we evaluated the teachings of Tormaschy (including the incorporated by reference disclosures). Appellants have not convincingly pointed out any point overlooked or misapprehended in our fact finding, application of law, or analysis. The fact that a batch process will have a flow rate when material is removed, as argued by Appellants, does not convince us that Tormaschy would not have suggested continuous flow to one of ordinary skill in the art. As we found in our Decision, Tormaschy exemplifies inputting and withdrawing, under steady state operating conditions, feedstocks and product slurry at particular flow rates reported in pounds per hour (FF 23 at Decision 18). Tormaschy’s reporting equal input and output rates in pounds per hour supports the Examiner’s finding that Tormaschy would have suggested continuous flow during steady state conditions such that withdrawing is done “substantially continuously” as required by claim 37.

When the incorporated by reference patent to Miller is further considered, there is further support for the Examiner’s finding. Tormaschy is silent with regard to whether the removal is batch or continuous. In fact, Tormaschy is not particularly concerned with the manner in which the reactor is operated, such is said to be conventional (FF 20). Instead, Tormaschy refers to Miller and another patent, which are incorporated by reference, for operational teachings (FF 20). Miller describes withdrawing the slurry from the reactor 11 through a product conduit 19, which can be a drain or vertical leg (FF 21). The product conduit includes a valve (FF 22).

Miller expressly states that withdrawal can be either continuous or intermittent (FF 21). That Miller, which is incorporated by reference in Tormaschy, expressly states that the withdrawal can be continuous further provides evidence that the ordinary artisan would understand how to configure the apparatus of Tormaschy for “withdrawing substantially continuously via a valve a discharge slurry from the reactor” as required by claim 37.

Appellants do not dispute any of our fact findings. Moreover, Appellants acknowledge that Miller teaches “some manner of maintained flow” albeit Appellants further argue that this flow is through “a typical settling leg configuration.” (Request 3.) The problem is that such a typical settling leg configuration is not, contrary to Appellants' arguments, precluded by claim 37. Claim 37 does not particularly limit the structure of the apparatus used to perform the step of withdrawing. Nor can we say that the concentration limitation, “discharge slurry has a solids concentration greater than the solids concentration of the slurry in the reactor,” provides the necessary distinction. As we stated in our Decision, the drain or vertical leg is at the bottom of the reactor, therefore, it is reasonable to conclude that gravity would cause at least some increase in concentration in the discharge slurry as compared to the slurry in the reactor (Decision 23).

Appellants advance a new argument that Tormaschy operates the reactor to prevent polymer solids from settling out of the circulating reaction slurry and plugging the reactor, and this disclosure contradicts the Examiner's finding that settling inherently occurs (Request 5, citing Tormaschy Abstract). As this argument is new (*see* Br. and Reply Br., generally), Appellants do not present good cause for its consideration, and

the argument does not address any point in our decision misapprehended or overlooked, we do not address it. *See* 37 C.F.R. §§ 41.37 (c)(1)(vii) and 41.52 (a)(1) (arguments not included in the brief or reply brief will be refused consideration unless good cause is shown).

Appellants contend that Miller relates to obtaining effluent from a product conduit, not from a reactor, and we overlooked this subtlety (Request 5). But the limitation only requires that “the discharge slurry” have a solids concentration greater than the solids concentration of “the slurry in the reactor.” The location of this “discharge slurry” could be within a drain or vertical leg within conduit 19 of Miller. The “discharge slurry” solids concentration is to be compared to the solids concentration of “the slurry in the reactor.” It is reasonable to conclude that gravity would inherently cause the solids concentration within Miller’s conduit 19 (drain or vertical leg) to be greater than the solids concentration within the reactor.

Nor can we say the words “*via a valve*” and “*from the reactor*” provide the necessary distinction (Request 4). The limitation reads, “withdrawing substantially continuously via a valve a discharge slurry from the reactor . . . wherein the discharge slurry has a solids concentration greater than the solids concentration of the slurry in the reactor.” (Claim 37). As we found, Miller’s withdrawal is “via a valve” and it clearly is a withdrawal “from the reactor” (FF 21-22; *see also* Decision 22-23).

We also took into account Hottovy’s declaration that the Tormaschy inventors (Hottovy being one of those inventors) contemplated a settling leg configuration, in which withdrawal of slurry from the reactor occurs in a discontinuous manner (FF 25; Decision 22). This evidence simply did not overcome the evidence to the contrary when all the evidence was considered



as a whole, especially given the express disclosure of continuous withdrawal in Miller and the breath of the claim, which only requires “withdrawing *substantially* continuously.”

Appellants further contend that Tormaschy is not enabled with regard to the “continuously conveying” limitation (Request 5-6). Appellants do not provide any evidence or reasoned argument in support. A reference is presumed to be enabling and therefore, the burden is on the applicants to prove the reference is not enabling. *Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990); *In re Sasse*, 629 F.2d 675, 681 (CCPA 1980). Appellants have not met that burden.

#### *Conclusion*

Appellants have not established that we misapprehended or overlooked the claim language, Specification disclosures, and arguments relating to the withdrawing step of claim 37 discussed in the Request in sustaining the rejection over Tormaschy in view of Hanson ‘892 and Hanson ‘341.

The subject Request has been granted to the extent that the Decision has been reconsidered, but is denied with respect to making any changes therein.

DENIED

Appeal 2008-006064  
Application 10/699,095

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